



UvA-DARE (Digital Academic Repository)

Further re-brightening of the black hole candidate MAXI J1659-152

Yang, Y.J.; Wijnands, R.

Publication date

2011

Document Version

Final published version

Published in

The astronomer's telegram

[Link to publication](#)

Citation for published version (APA):

Yang, Y. J., & Wijnands, R. (2011). Further re-brightening of the black hole candidate MAXI J1659-152. *The astronomer's telegram*. <http://www.astronomerstelegam.org/?read=3379>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Outside

GCN
IAUCs

Other

ATel on [Twitter](#) and [Facebook](#)
 ATELstream
 ATel Community Site

This space for free for your conference.

[[Previous](#) | [Next](#) | [ADS](#)]

Further re-brightening of the black hole candidate MAXI J1659-152

ATel #3379; *Y. J. Yang, R. Wijnands (University of Amsterdam)*
 on 25 May 2011; 17:04 UT
 Credential Certification: *Rudy Wijnands (rudy@space.mit.edu)*

Subjects: Optical, Ultra-Violet, X-ray, Binary, Black Hole, Transient

Referred to by ATel #: [3506](#), [3517](#)

Following our previous reports on a sudden drop but later a steep increase of the source intensity of the black hole candidate MAXI J1659-152 (ATels #[3298](#), #[3339](#), see also ATel #[3358](#)), we continued to monitor the source with Swift. An observation was carried out on 2011-05-21 13:10:19 UT with an exposure ~ 2.9 ks. Our new observation shows that the source re-brightening is continuing. The energy spectrum can be well fitted with an absorbed power-law model. We obtained a column density $N_H = 2.2 \pm 0.6 \times 10^{21} \text{ cm}^{-2}$ and a power-law photon index of 1.6 ± 0.2 . The unabsorbed 0.3-10 keV flux is $2.8 \times 10^{-11} \text{ erg cm}^{-2} \text{ s}^{-1}$, transfers to a X-ray luminosity of $1.6 \times 10^{35} \text{ erg/s}$ (assuming a distance of 7kpc, Kuulkers et al. 2011, arXiv:1102.2102), which is a factor of 2-3 times brighter than during the Chandra observation performed on May 12 (ATel #[3358](#)). However, with the distances derived by Miller-Jones et al. (1.6-4.2 kpc, ATel #[3358](#)) the luminosity would become $8.6 \times 10^{33} - 5.9 \times 10^{34} \text{ erg/s}$.

The source was also detected in all UVOT filters. The magnitudes we obtained are $v = 18.6 \pm 0.3$, $b = 19.5 \pm 0.3$, $u = 18.9 \pm 0.2$, $uvw1 = 19.5 \pm 0.3$, $uvm2 = 19.6 \pm 0.3$, and $uvw2 = 19.4 \pm 0.2$. As the source re-brightening is likely to continue, follow-up observations in other wavelengths are strongly encouraged.

We thank the Swift team for their prompt arrangement of the observation. This work made use of data supplied by the UK Swift Science Data Centre at the University of Leicester.

Related

- [3524](#) Lulin Optical Observations of MAXI J1659-152
- [3517](#) MAXI J1659-152 fading in optical
- [3506](#) MAXI J1659-152 has likely returned back into quiescence
- [3379](#) Further re-brightening of the black hole candidate MAXI J1659-152
- [3358](#) X-ray and radio observations of the re-brightening event in MAXI J1659-152
- [3339](#) Re-brightening of the black hole candidate MAXI J1659-152
- [3298](#) Continued Swift monitoring of the black hole candidate MAXI J1659-152
- [3250](#) Swift J164449.3+573451/GRB 110328A: Continued Swift Monitoring
- [3249](#) Swift XRT/UVOT monitoring of MAXI J1659-152 during its low luminosity phase
- [3201](#) Swift XRT/UVOT follow-up of the Black Hole Candidate MAXI J1659-152 during a low luminosity state
- [2999](#) Soft-to-Hard transition in MAXI J1659-152
- [2976](#) Optical emission of the black hole X-ray transient MAXI J1659-152 during quiescence
- [2951](#) RXTE shows a transition to the high-soft state in MAXI J1659-152
- [2927](#) Transition to the soft-intermediate state of MAXI J1659-152
- [2926](#) RXTE dips yield better orbital period determination for MAXI J1659-152
- [2918](#) Sudden radio flux decline in MAXI J1659-152
- [2912](#) MAXI J1659-152: the shortest period black-hole binary?
- [2906](#) EVN e-VLBI detections of MAXI J1659-152

2900	REM optical/NIR observations of MAXI J1659-152
2890	INTEGRAL shows MAXI J1659-152 further declines in hard X-rays
2888	INTEGRAL TOO observations of MAXI J1659-152
2887	XMM-Newton observations of MAXI J1659-152
2884	Optical variability in MAXI J1659-152
2881	MAXI J1659-152 is a BH candidate
2880	AGILE upper limits above 100 MeV regarding the recent transient MAXI J1659-152
2877	MAXI J1659-152: Swift localization and monitoring
2875	INTEGRAL detection of the new MAXI transient MAXI J1659-152
2874	WSRT Radio and Polarization Detection of GRB 100925A / MAXI J1659-152
2873	MAXI/GSC detection of a new hard X-ray transient source MAXI J1659-152
2734	Radio and X-ray monitoring of Cygnus X-1 during the recent state change

[**Telegram Index**]

R. E. Rutledge, Editor-in-Chief

Derek Fox, Editor

`rrutledge@astronomerstelegam.org`

`dfox@astronomerstelegam.org`